

What is claimed is:

- 1 1. A programmable batch processing engine for a computer network,
2 comprising:
3 a design tool subsystem operable on a first computer that creates a set of
4 specifications in response to user input, the set of specifications defining a template for
5 user-desired processing services to be performed;
6 wherein the specifications identify processing properties for said
7 processing services to define the execution of a batch application;
8 a specification server subsystem adapted to store said template for
9 enabling access to said template from the computer network;
10 a processing subsystem adapted to perform processing of the batch
11 application according to a user defined version of said template; and
12 a middleware subsystem providing communication of the specifications
13 from the design tool subsystem to the processing subsystem
- 1 2. An engine as in claim 1, wherein the processing subsystem is
2 implemented using the first computer.
- 1 3. An engine as in claim 1, wherein the processing subsystem is
2 implemented using a second computer.
- 1 4. An engine as in claim 1, further comprising a second computer,
2 wherein the specifications are sent from the first computer to the second computer for
3 storage, and are sent from the second computer to the processing subsystem for
4 processing.
- 1 5. An engine as in claim 1, further comprising a network having
2 database facilities and further comprising a database middleware subsystem adapted to
3 direct access to the database facilities in accordance with the specifications.
- 1 6. An engine as in claim 1, further comprising a network having
2 input-output facilities and further comprising an input-output middleware subsystem

3 adapted to direct access to the input-output facilities in accordance with the
4 specifications.

1 7. An engine as in claim 1, wherein said processing subsystem is
2 implemented using a second computer adapted to send to the first computer completion
3 data in response to completion of processing in accordance with the specifications by the
4 second computer.

1 8. An engine as in claim 1, wherein said processing subsystem is
2 implemented using a second computer adapted to send to the first computer error data in
3 response to detection of an error in processing according to the specifications by the
4 second computer.

1 9. An engine as in claim 6, wherein the input-output middleware
2 subsystem is adapted to selectively route an input-output data stream to one of a plurality
3 of input-output devices and to convert the data stream to a format suitable for the selected
4 one of the plurality of input-output devices

1 10. A data processing method, comprising:
2 generating a set of specifications defining a template for user-desired
3 processing services to be performed;
4 identifying processing properties for said processing services to define the
5 execution of a batch application;
6 storing said template on a specifications server, said template thereby
7 being available to a plurality of users;
8 sending said template to a processing subsystem for processing the batch
9 application according to a user defined version of said template; and
10 sending the results of the processing to one of said plurality of users.

1 11. A method as in claim 10, further comprising directing access to
2 database facilities in accordance with the specifications by using database middleware.

1 12. A method as in claim 10, further comprising directing access to
2 input-output facilities in accordance with the specification by using input-output
3 middleware.

1 13. A method as in claim 10, further comprising sending completion
2 data from the processing subsystem in response to completion of processing in
3 accordance with the specifications by the processing subsystem.

1 14. A method as in claim 10, further comprising sending error data
2 from the processing subsystem in response to detection of an error in processing in
3 accordance with the specifications by the processing subsystem.

1 15. A method as in claim 12, further comprising selectively routing, by
2 the input-output middleware, an input-output data stream to one of a plurality of input-
3 output devices and converting the data stream to a format suitable thereto.

1 16. A programmable batch processing engine for a processing system
2 including a plurality of computers connected by a network, comprising:

3 design tool means for creating a set of specifications on one of the
4 computers defining a template for desired processing services, said specifications
5 identifying processing properties for said processing services to define the execution of a
6 batch application;

7 specification means for storing said template on another one of the
8 computers to provide the plurality of computers with access to said template;

9 processing means responsive to said template for processing said
10 batch application in accordance with a user defined version of said template on a further
11 one of the computers; and

12 middleware means for communicating information including said
13 set of specifications between the plurality of computers.

1 17. An engine according to claim 16, further including database means
2 for storing data required by said processing means when executing said batch application
3 on an additional one of the computers.

1 18. An engine according to claim 16, further including output means
2 responsive to completion data generated by said processing of said batch application for
3 managing output information on an additional one of the computers.

1 19. A method for a processing a batch application on a processing
2 system including a plurality of computers connected by a network, comprising:
3 creating a set of specifications on one of the computers defining a
4 template for desired processing services;
5 identifying processing properties for said processing services to
6 define the execution of a batch application;
7 storing said template on another one of the computers to provide
8 the plurality of computers with access to said template;
9 processing said batch application in accordance with a user defined
10 version of said template on a further one of the computers; and
11 communicating information including said set of specifications
12 between the plurality of computers.

1 20. A method according to claim 19, further including storing data
2 required by said processing means when processing said batch application on an
3 additional one of the computers.

1 21. A method according to claim 19, further including managing
2 output information on an additional one of the computers in response to completion data
3 generated by said processing of said batch application.